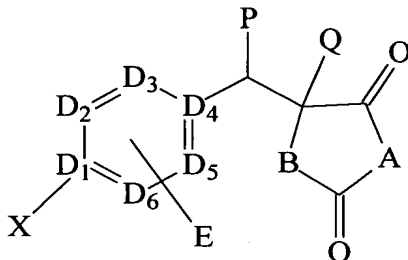


Claims

1. A composition comprising a carrier and a compound of Formula I

Formula I



wherein:

A is NH and B is sulfur;

D₁-D₆ are C;

E can be attached to one or more of the atoms located at D₂, D₃, D₅ or D₆;

P and Q are a double bond; and

E can be the same or different and is a moiety selected from the group consisting of H, C₁₋₁₀ alkyl, and substituted alkyl groups;

X is a substituted carboxylic group comprising -N-(C)₁₋₃-C(O)O- that is attached to D₁;

or salts of the compound of Formula I; or

A is NH and B is sulfur;

D₁-D₆ are C;

E can be attached to one or more of the atoms located at D₂, D₃, D₅ or D₆;

P and Q are hydrogen; and

E is hydrogen;

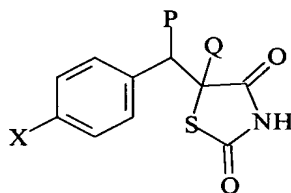
X is a substituted carboxylic group comprising -N-(C)₁₋₃-C(O)O- that is attached to D₁;

or salts of the compound of Formula I.

2. The composition according to claim 1, wherein said substituted carboxylic group comprising -N-(C)₁₋₃-C(O)-O- is a portion of a moiety selected from the group consisting of a heteroarylcarbonyloxy, heteroalkylcarbonyloxy, and each of which is optionally substituted with C₁₋₁₀ alkyl, CN, COOH, NO₂, NH₂, SO₂₋₄, C₁₋₂₀

heteroalkyl, C₂₋₂₀ alkenyl, alkynyl, alkynylaryl, alkynylheteroaryl, aryl, C₁₋₂₀ alkylaryl, C₂₋₂₀ alkenylaryl, heteroaryl, C₁₋₂₀ alkylheteroaryl, C₂₋₂₀ alkenylheteroaryl, cycloalkyl, heterocycloalkyl, C₁₋₂₀ alkylheterocycloalkyl, and C₁₋₂₀ alkylcycloalkyl, any of which may be optionally substituted with a moiety selected from the group consisting of C₁₋₆ alkyl, halogen, OH, NH₂, CN, NO₂, COOH, or SO₂₋₄.

3. The composition according to claim 1, wherein said compound has the formula



and wherein X, P, and Q are defined as:

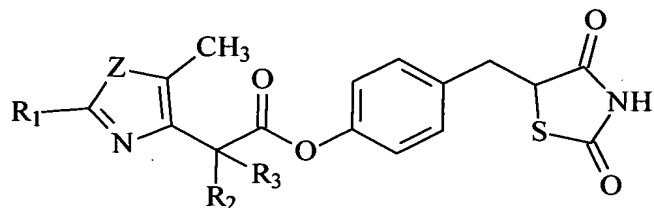
Compound number	X	P and Q
7		H;
8		db

or salts thereof.

4. The composition according to claim 3, wherein said compound is compound 7 or a salt thereof.

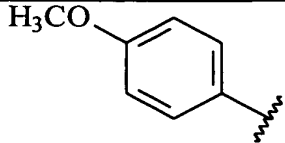
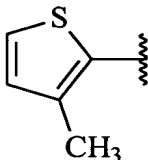
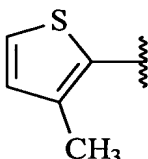
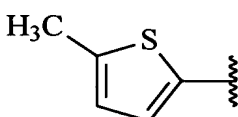
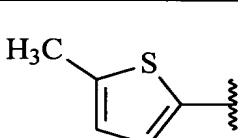
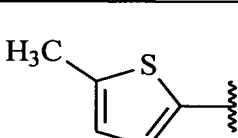
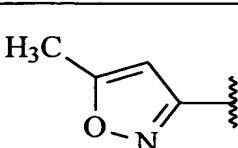
5. The composition according to claim 3, wherein said compound is compound 8 or a salt thereof.

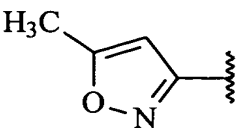
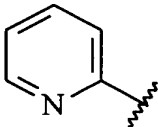
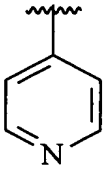
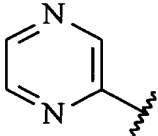
6. The composition according to claim 1, wherein said compound has the formula



and wherein R₁, R₂, R₃, and Z are defined as:

Compound number	Z	R ₁	R ₂	R ₃	
33	O		H	H	;
34	O		CH ₃	H	;
35	O		CH ₃	CH ₃	;
36	S		CH ₃	H	;
37	O		CH ₃	H	;
38	S		CH ₃	H	;
39	O		CH ₃	H	;

Compound number	Z	R ₁	R ₂	R ₃	
40	S		CH ₃	H	;
41	O		CH ₃	H	;
42	S		CH ₃	H	;
43	O		H	H	;
44	O		CH ₃	H	;
45	S		H	H	;
46	O		CH ₃	H	;

Compound number	Z	R ₁	R ₂	R ₃	
47	S		H	H	;
48	O		CH ₃	H	;
49	O		CH ₃	H	; or
50	O		CH ₃	H	or salts thereof.

7. The composition according to claim 6, wherein said compound is compound 33, or a salt thereof.

8. The composition according to claim 6, wherein said compound is compound 34, or a salt thereof.

9. The composition according to claim 6, wherein said compound is compound 35, or a salt thereof.

10. The composition according to claim 6, wherein said compound is compound 36, or a salt thereof.

11. The composition according to claim 6, wherein said compound is

compound 37, or a salt thereof.

12. The composition according to claim 6, wherein said compound is compound 38, or a salt thereof.

13. The composition according to claim 6, wherein said compound is compound 39, or a salt thereof.

14. The composition according to claim 6, wherein said compound is compound 40, or a salt thereof.

15. The composition according to claim 6, wherein said compound is compound 41, or a salt thereof.

16. The composition according to claim 6, wherein said compound is compound 42, or a salt thereof.

17. The composition according to claim 6, wherein said compound is compound 43, or a salt thereof.

18. The composition according to claim 6, wherein said compound is compound 44, or a salt thereof.

19. The composition according to claim 6, wherein said compound is compound 45, or a salt thereof.

20. The composition according to claim 6, wherein said compound is compound 46, or a salt thereof.

21. The composition according to claim 6, wherein said compound is compound 47, or a salt thereof.

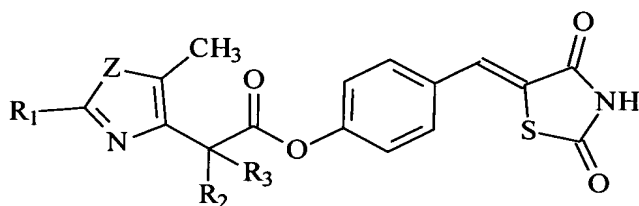
22. The composition according to claim 6, wherein said compound is

compound 48, or a salt thereof.

23. The composition according to claim 6, wherein said compound is compound 49, or a salt thereof.

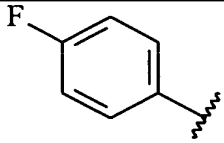
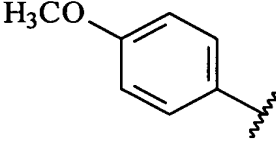
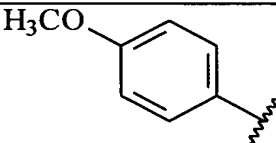
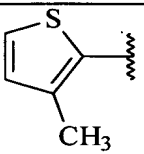
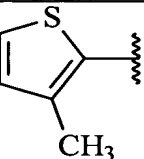
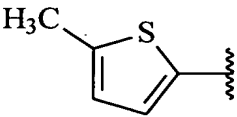
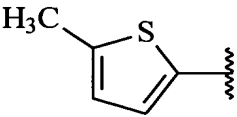
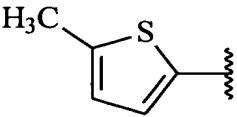
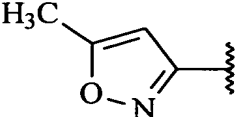
24. The composition according to claim 6, wherein said compound is compound 50, or a salt thereof.

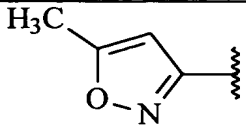
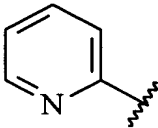
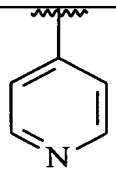
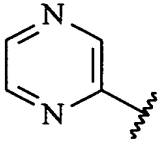
25. The composition according to claim 1, wherein said compound has the formula



and wherein R₁, R₂, R₃, and Z are defined as:

Compound number	Z	R ₁	R ₂	R ₃	
51	O		H	H	;
52	O		CH ₃	H	;
53	O		CH ₃	CH ₃	;
54	S		CH ₃	H	;
55	O		CH ₃	H	;

Compound number	Z	R ₁	R ₂	R ₃	
56	S		CH ₃	H	;
57	O		CH ₃	H	;
58	S		CH ₃	H	;
59	O		CH ₃	H	;
60	S		CH ₃	H	;
61	O		H	H	;
62	O		CH ₃	H	;
63	S		H	H	;
64	O		CH ₃	H	;

Compound number	Z	R ₁	R ₂	R ₃	
65	S		H	H	;
66	O		CH ₃	H	;
67	O		CH ₃	H	; or
68	O		CH ₃	H	or salts thereof.

26. The composition according to claim 25, wherein said compound is compound 51, or a salt thereof.

27. The composition according to claim 25, wherein said compound is compound 52, or a salt thereof.

28. The composition according to claim 25, wherein said compound is compound 53, or a salt thereof.

29. The composition according to claim 25, wherein said compound is compound 54, or a salt thereof.

30. The composition according to claim 25, wherein said compound is compound 55, or a salt thereof.

31. The composition according to claim 25, wherein said compound is compound 56, or a salt thereof.

32. The composition according to claim 25, wherein said compound is compound 57, or a salt thereof.

33. The composition according to claim 25, wherein said compound is compound 58, or a salt thereof.

34. The composition according to claim 25, wherein said compound is compound 59, or a salt thereof.

35. The composition according to claim 25, wherein said compound is compound 60, or a salt thereof.

36. The composition according to claim 25, wherein said compound is compound 61, or a salt thereof.

37. The composition according to claim 25, wherein said compound is compound 62, or a salt thereof.

38. The composition according to claim 25, wherein said compound is compound 63, or a salt thereof.

39. The composition according to claim 25, wherein said compound is compound 64, or a salt thereof.

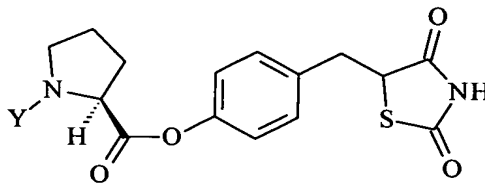
40. The composition according to claim 25, wherein said compound is compound 65, or a salt thereof.

41. The composition according to claim 25, wherein said compound is compound 66, or a salt thereof.

42. The composition according to claim 25, wherein said compound is compound 67, or a salt thereof.

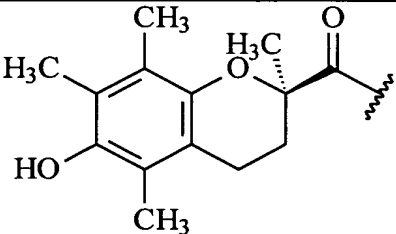
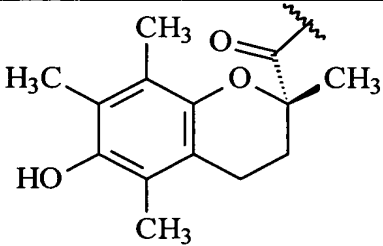
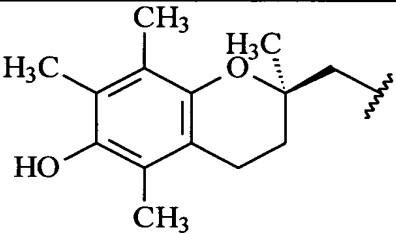
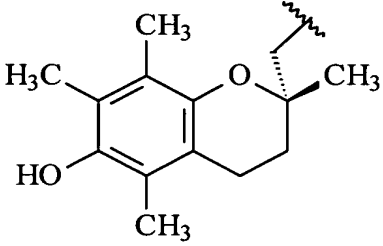
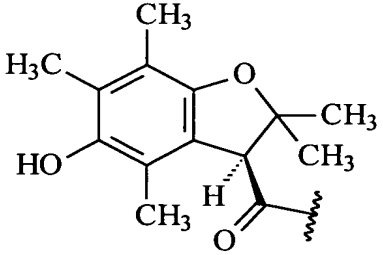
43. The composition according to claim 25, wherein said compound is compound 68, or a salt thereof.

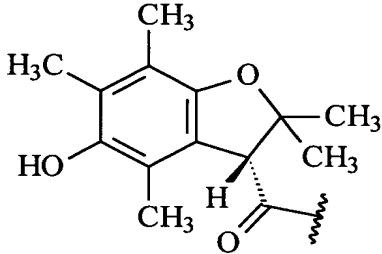
44. The composition according to claim 1, wherein said compound has the formula



and wherein Y is defined as:

Compound Number	Y
105	;
106	;
107	;
108	;

Compound Number	Y
109	
110	
111	
112	
113	

Compound Number	Y
114	 <p>or salts thereof.</p>

45. The composition according to claim 44, wherein said compound is compound 105, or a salt thereof.

46. The composition according to claim 44, wherein said compound is compound 106, or a salt thereof.

47. The composition according to claim 44, wherein said compound is compound 107, or a salt thereof.

48. The composition according to claim 44, wherein said compound is compound 108, or a salt thereof.

49. The composition according to claim 44, wherein said compound is compound 109, or a salt thereof.

50. The composition according to claim 44, wherein said compound is compound 110, or a salt thereof.

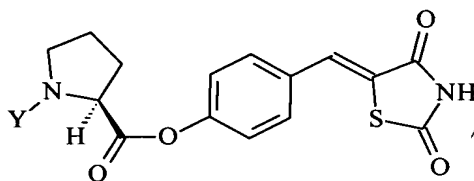
51. The composition according to claim 44, wherein said compound is compound 111, or a salt thereof.

52. The composition according to claim 44, wherein said compound is compound 112, or a salt thereof.

53. The composition according to claim 44, wherein said compound is compound 113, or a salt thereof.

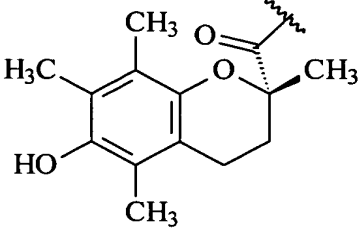
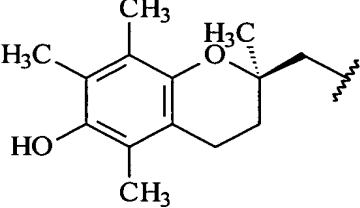
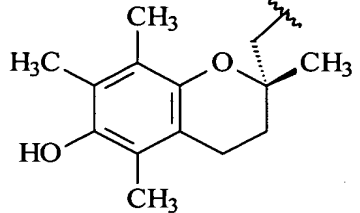
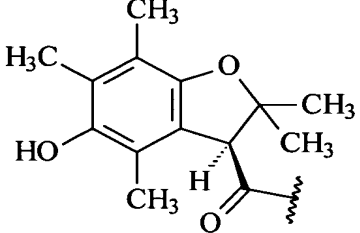
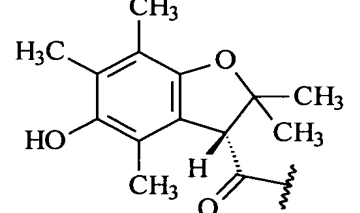
54. The composition according to claim 44, wherein said compound is compound 114, or a salt thereof.

55. The composition according to claim 1, wherein said compound has the formula



and wherein Y is defined as:

Compound number	Y
115	;
116	;
117	;
118	;
119	;

Compound number	Y
120	
121	
122	
123	
124	

56. The composition according to claim 55, wherein said compound is compound 115, or a salt thereof.

57. The composition according to claim 55, wherein said compound is compound 116, or a salt thereof.

58. The composition according to claim 55, wherein said compound is compound 117, or a salt thereof.

59. The composition according to claim 55, wherein said compound is compound 118, or a salt thereof.

60. The composition according to claim 55, wherein said compound is compound 119, or a salt thereof.

61. The composition according to claim 55, wherein said compound is compound 120, or a salt thereof.

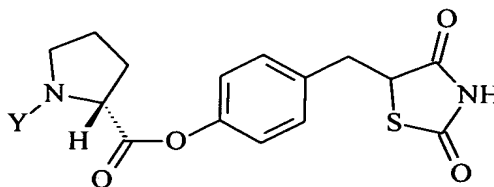
62. The composition according to claim 55, wherein said compound is compound 121, or a salt thereof.

63. The composition according to claim 55, wherein said compound is compound 122, or a salt thereof.

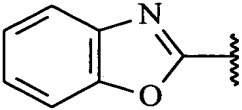
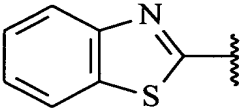
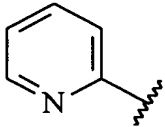
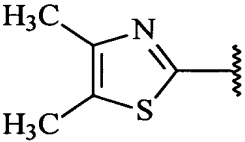
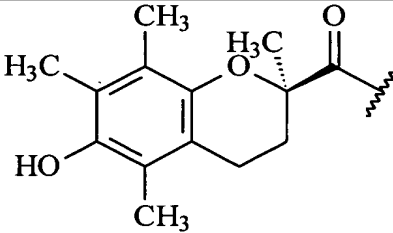
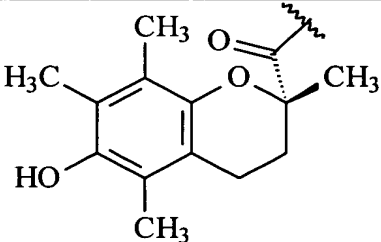
64. The composition according to claim 55, wherein said compound is compound 123, or a salt thereof.

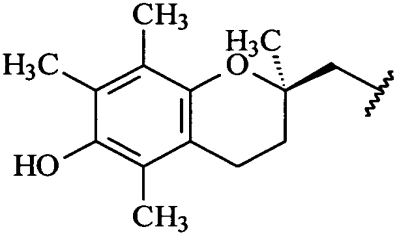
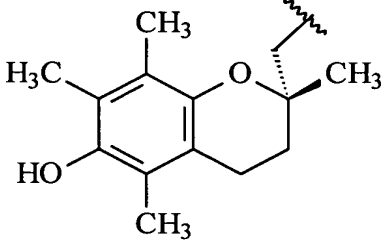
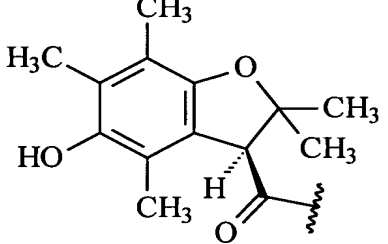
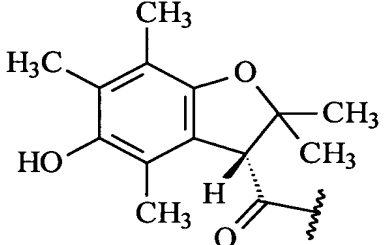
65. The composition according to claim 55, wherein said compound is compound 124, or a salt thereof.

66. The composition according to claim 1, wherein said compound has the formula



and wherein Y is defined as:

Compound number	Y
125	
126	
127	
128	
129	
130	

Compound number	Y
131	
132	
133	
134	

67. The composition according to claim 66, wherein said compound is compound 125, or a salt thereof.

68. The composition according to claim 66, wherein said compound is compound 126, or a salt thereof.

69. The composition according to claim 66, wherein said compound is compound 127, or a salt thereof.

70. The composition according to claim 66, wherein said compound is compound 128, or a salt thereof.

71. The composition according to claim 66, wherein said compound is compound 129, or a salt thereof.

72. The composition according to claim 66, wherein said compound is compound 130, or a salt thereof.

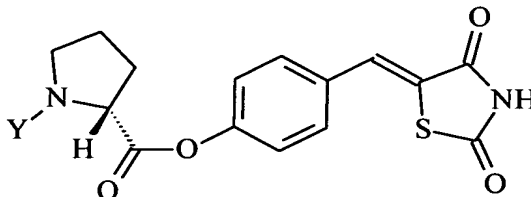
73. The composition according to claim 66, wherein said compound is compound 131, or a salt thereof.

74. The composition according to claim 66, wherein said compound is compound 132, or a salt thereof.

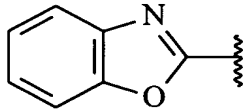
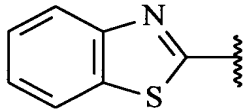
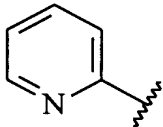
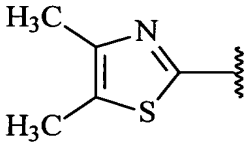
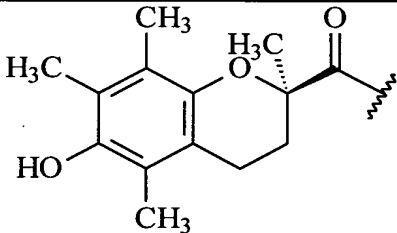
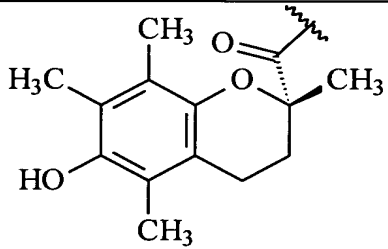
75. The composition according to claim 66, wherein said compound is compound 133, or a salt thereof.

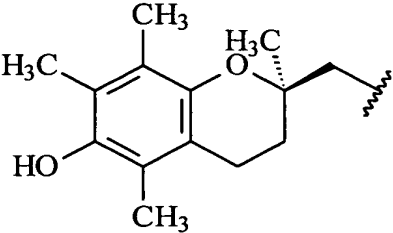
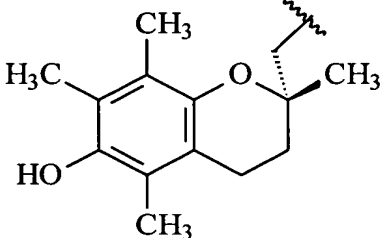
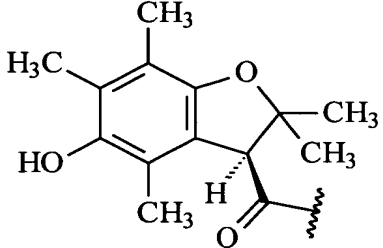
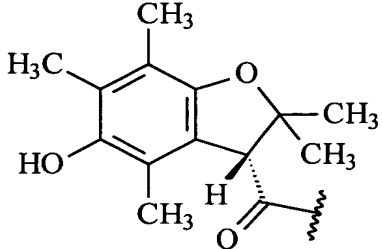
76. The composition according to claim 66, wherein said compound is compound 134, or a salt thereof.

77. The composition according to claim 1, wherein said compound has the formula



and wherein Y is defined as:

Compound number	Y
135	 ;
136	 ;
137	 ;
138	 ;
139	 ;
140	 ;

Compound number	Y
141	
142	
143	
144	

78. The composition according to claim 77, wherein said compound is compound 135, or a salt thereof.

79. The composition according to claim 77, wherein said compound is compound 136, or a salt thereof.

80. The composition according to claim 77, wherein said compound is compound 137, or a salt thereof.

81. The composition according to claim 77, wherein said compound is compound 138, or a salt thereof.

82. The composition according to claim 77, wherein said compound is compound 139, or a salt thereof.

83. The composition according to claim 77, wherein said compound is compound 140, or a salt thereof.

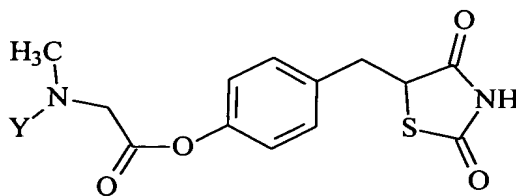
84. The composition according to claim 77, wherein said compound is compound 141, or a salt thereof.

85. The composition according to claim 77, wherein said compound is compound 142, or a salt thereof.

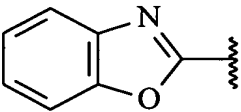
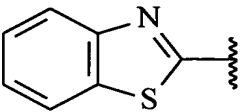
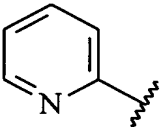
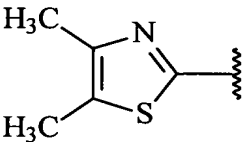
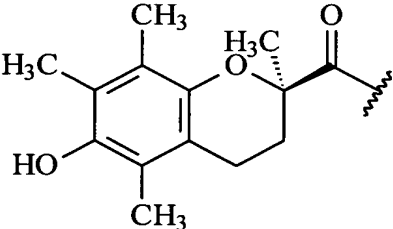
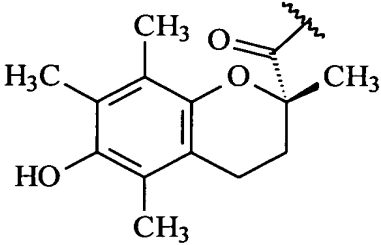
86. The composition according to claim 77, wherein said compound is compound 143, or a salt thereof.

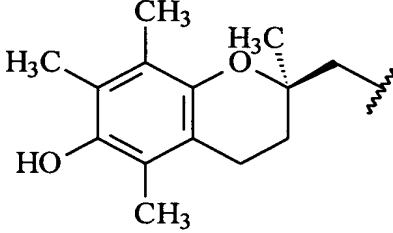
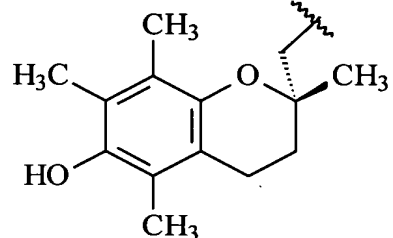
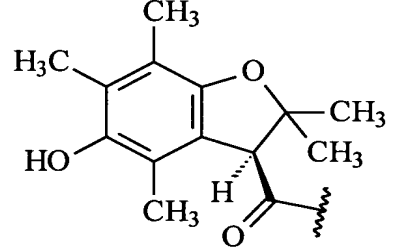
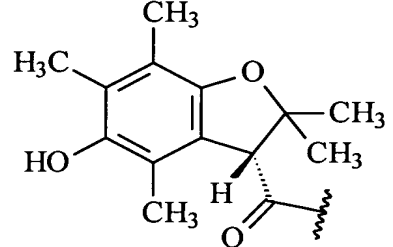
87. The composition according to claim 77, wherein said compound is compound 144, or a salt thereof.

88. The composition according to claim 1, wherein said compound has the formula



and wherein Y is defined as:

Compound number	Y
185	 ;
186	 ;
187	 ;
188	 ;
189	 ;
190	 ;

Compound number	Y
191	
192	
193	
194	

89. The composition according to claim 88, wherein said compound is compound 185, or a salt thereof.

90. The composition according to claim 88, wherein said compound is compound 186, or a salt thereof.

91. The composition according to claim 88, wherein said compound is compound 187, or a salt thereof.

92. The composition according to claim 88, wherein said compound is compound 188, or a salt thereof.

93. The composition according to claim 88, wherein said compound is compound 189, or a salt thereof.

94. The composition according to claim 88, wherein said compound is compound 190, or a salt thereof.

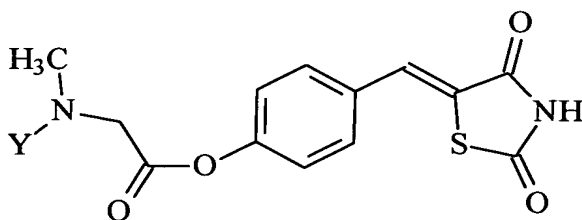
95. The composition according to claim 88, wherein said compound is compound 191, or a salt thereof.

96. The composition according to claim 88, wherein said compound is compound 192, or a salt thereof.

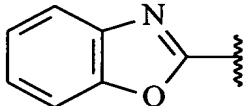
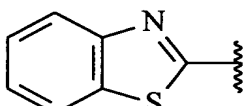
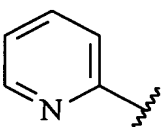
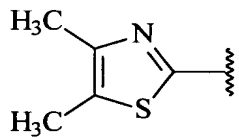
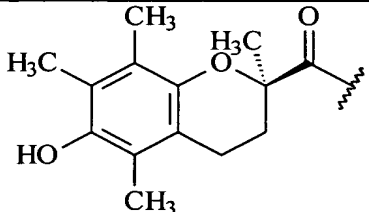
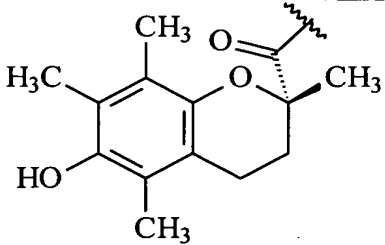
97. The composition according to claim 88, wherein said compound is compound 193, or a salt thereof.

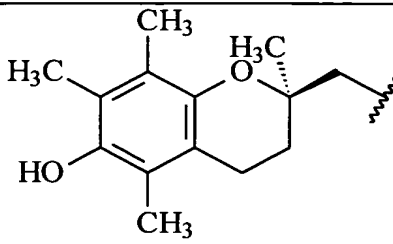
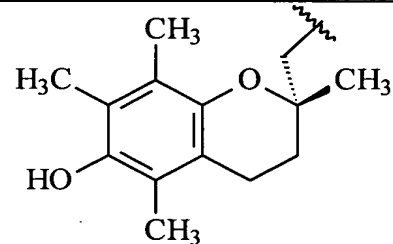
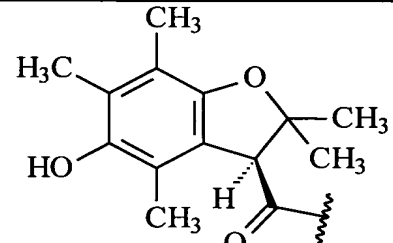
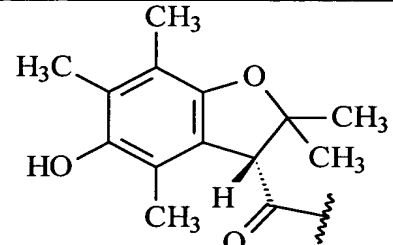
98. The composition according to claim 88, wherein said compound is compound 194, or a salt thereof.

99. The composition according to claim 1, wherein said compound has the formula



and wherein Y is defined as:

Compound number	Y
195	 ;
196	 ;
197	 ;
198	 ;
199	 ;
200	 ;

Compound number	Y
201	
202	
203	
204	

100. The composition according to claim 99, wherein said compound is compound 195, or a salt thereof.

101. The composition according to claim 99, wherein said compound is compound 196, or a salt thereof.

102. The composition according to claim 99, wherein said compound is compound 197, or a salt thereof.

103. The composition according to claim 99, wherein said compound is compound 198, or a salt thereof.

104. The composition according to claim 99, wherein said compound is compound 199, or a salt thereof.

105. The composition according to claim 99, wherein said compound is compound 200, or a salt thereof.

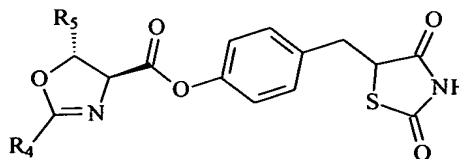
106. The composition according to claim 99, wherein said compound is compound 201, or a salt thereof.

107. The composition according to claim 99, wherein said compound is compound 202, or a salt thereof.

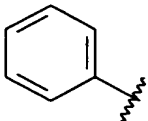
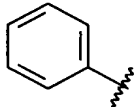
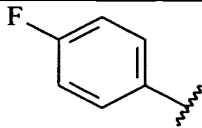
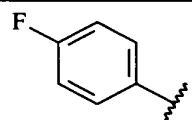
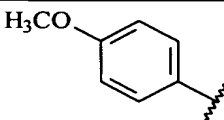
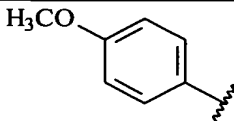
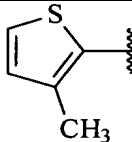
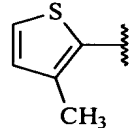
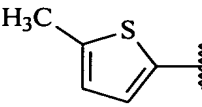
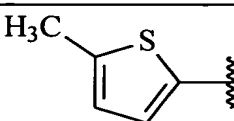
108. The composition according to claim 99, wherein said compound is compound 203, or a salt thereof.

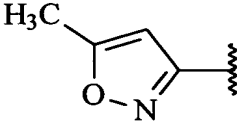
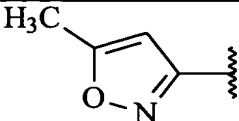
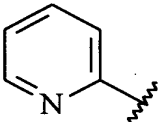
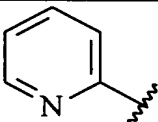
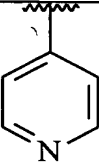
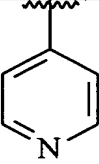
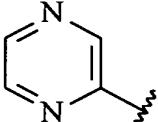
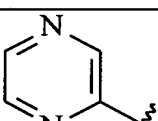
109. The composition according to claim 99, wherein said compound is compound 204, or a salt thereof.

110. The composition according to claim 1, wherein said compound has the formula



and wherein R₄ and R₅ are defined as:

Compound number	R ₄	R ₅
225		H ;
226		CH ₃ ;
227		H ;
228		CH ₃ ;
229		H ;
230		CH ₃ ;
231		H ;
232		CH ₃ ;
233		H ;
234		CH ₃ ;

Compound number	R ₄	R ₅
235		H ;
236		CH ₃ ;
237		H ;
238		CH ₃ ;
239		H ;
240		CH ₃ ;
241		H ; or
242		CH ₃ or salts thereof.

111. The composition according to claim 110 wherein said compound is compound 225, or a salt thereof.

112. The composition according to claim 110, wherein said compound is compound 226, or a salt thereof.

113. The composition according to claim 110, wherein said compound is compound 227, or a salt thereof.

114. The composition according to claim 110, wherein said compound is compound 228, or a salt thereof.

115. The composition according to claim 110, wherein said compound is compound 229, or a salt thereof.

116. The composition according to claim 110, wherein said compound is compound 230, or a salt thereof.

117. The composition according to claim 110, wherein said compound is compound 231, or a salt thereof.

118. The composition according to claim 110, wherein said compound is compound 232, or a salt thereof.

119. The composition according to claim 110, wherein said compound is compound 233, or a salt thereof.

120. The composition according to claim 110, wherein said compound is compound 234, or a salt thereof.

121. The composition according to claim 110, wherein said compound is compound 235, or a salt thereof.

122. The composition according to claim 110, wherein said compound is compound 236, or a salt thereof.

123. The composition according to claim 110, wherein said compound is

compound 237, or a salt thereof.

124. The composition according to claim 110, wherein said compound is compound 238, or a salt thereof.

125. The composition according to claim 110, wherein said compound is compound 239, or a salt thereof.

126. The compound, according to claim 110, wherein said compound is compound 240, or a salt thereof.

127. The composition according to claim 110, wherein said compound is compound 241, or a salt thereof.

128. The composition according to claim 110, wherein said compound is compound 242, or a salt thereof.

129. The composition according to claim 1, wherein:

A is NH and B is sulfur;

D₁-D₆ are C;

E can be attached to one or more of the atoms located at D₂, D₃, D₅ or D₆;

P and Q are a double bond;

E can be the same or different and is a moiety selected from the group consisting of H, C₁₋₁₀ alkyl, and substituted alkyl groups; and

X is a substituted carboxylic group comprising -N-(C)₁₋₃-C(O)O- that is attached to D₁;

or salts of the compound of Formula I.

130. The composition according to claim 1, wherein

A is NH and B is sulfur;

D₁-D₆ are C;

E can be attached to one or more of the atoms located at D₂, D₃, D₅ or D₆;

P and Q are hydrogen;

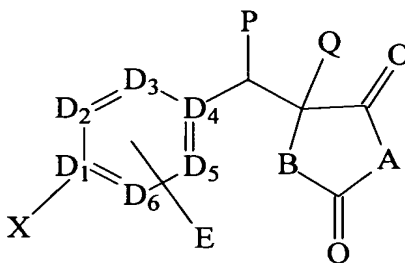
E is hydrogen; and

X is a substituted carboxylic group comprising $-N-(C)_{1-3}-C(O)O-$ that is attached to D_1 ;

or salts of the compound of Formula I.

131. A method of treating diabetes, atherosclerosis, hypercholesterolemia, or hyperlipidemia comprising the administration of a therapeutically effective amount of the composition comprising a carrier and a compound of Formula I

Formula I



wherein:

A is NH and B is sulfur;

D_1 - D_6 are C;

E can be attached to one or more of the atoms located at D_2 , D_3 , D_5 or D_6 ;

P and Q are a double bond; and

E can be the same or different and is a moiety selected from the group consisting of H, C_{1-10} alkyl, and substituted alkyl groups;

X is a substituted carboxylic group comprising $-N-(C)_{1-3}-C(O)O-$ that is attached to D_1 ;

or salts of the compound of Formula I; or

A is NH and B is sulfur;

D_1 - D_6 are C;

E can be attached to one or more of the atoms located at D_2 , D_3 , D_5 or D_6 ;

P and Q are hydrogen; and

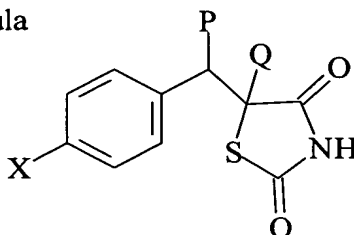
E is hydrogen;

X is a substituted carboxylic group comprising $-N-(C)_{1-3}-C(O)O-$ that is attached to D_1 ;

or salts of the compound of Formula I.

132. The method according to claim 131, wherein said substituted carboxylic acid group comprising $-N-(C)_{1-3}-C(O)-O-$ is a portion of a moiety selected from the group consisting of a heteroarylcarbonyloxy, heteroalkylcarbonyloxy, and each of which is optionally substituted with C_{1-10} alkyl, CN, COOH, NO_2 , NH_2 , SO_{2-4} , C_{1-20} heteroalkyl, C_{2-20} alkenyl, alkynyl, alkynylaryl, alkynylheteroaryl, aryl, C_{1-20} alkylaryl, C_{2-20} alkenylaryl, heteroaryl, C_{1-20} alkylheteroaryl, C_{2-20} alkenylheteroaryl, cycloalkyl, heterocycloalkyl, C_{1-20} alkylheterocycloalkyl, and C_{1-20} alkylcycloalkyl, any of which may be optionally substituted with a moiety selected from the group consisting of C_{1-6} alkyl, halogen, OH, NH_2 , CN, NO_2 , COOH, or SO_{2-4} .

133. The method according to claim 131, wherein the compound of said composition has the formula



and wherein X, P, and Q are defined as:

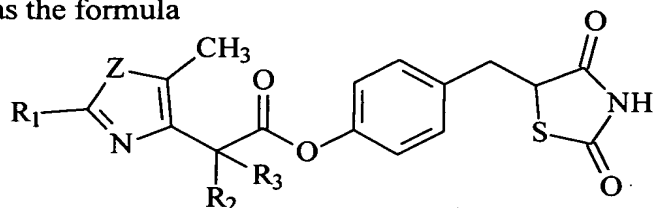
Compound number	X	P and Q
7		H;
8		db

or salts thereof.

134. The method according to claim 133, wherein the compound of said composition is compound 7 or a salt thereof.

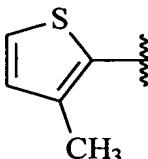
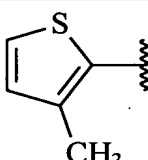
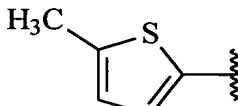
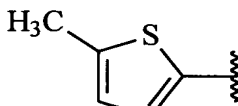
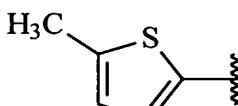
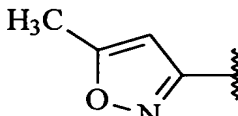
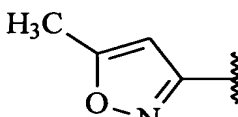
135. The method according to claim 133, wherein the compound of said composition is compound 8 or a salt thereof.

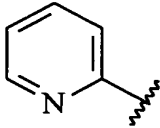
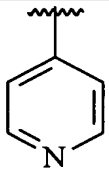
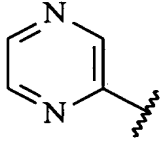
136. The method according to claim 131, wherein the compound of said composition has the formula



and wherein R_1 , R_2 , R_3 , and Z are defined as:

Compound number	Z	R_1	R_2	R_3	
33	O		H	H	;
34	O		CH ₃	H	;
35	O		CH ₃	CH ₃	;
36	S		CH ₃	H	;
37	O		CH ₃	H	;
38	S		CH ₃	H	;
39	O		CH ₃	H	;
40	S		CH ₃	H	;

Compound number	Z	R ₁	R ₂	R ₃
41	O		CH ₃	H ;
42	S		CH ₃	H ;
43	O		H	H ;
44	O		CH ₃	H ;
45	S		H	H ;
46	O		CH ₃	H ;
47	S		H	H ;

Compound number	Z	R ₁	R ₂	R ₃	
48	O		CH ₃	H	;
49	O		CH ₃	H	; or
50	O		CH ₃	H	or salts thereof.

137. The method according to claim 136, wherein the compound of said composition is compound 33, or a salt thereof.

138. The method according to claim 136, wherein the compound of said composition is compound 34, or a salt thereof.

139. The method according to claim 136, wherein the compound of said composition is compound 35, or a salt thereof.

140. The method according to claim 136, wherein the compound of said composition is compound 36, or a salt thereof.

141. The method according to claim 136, wherein the compound of said composition is compound 37, or a salt thereof.

142. The method according to claim 136, wherein the compound of said composition is compound 38, or a salt thereof.

143. The method according to claim 136, wherein the compound of said composition is compound 39, or a salt thereof.

144. The method according to claim 136, wherein the compound of said composition is compound 40, or a salt thereof.

145. The method according to claim 136, wherein the compound of said composition is compound 41, or a salt thereof.

146. The method according to claim 136, wherein the compound of said composition is compound 42, or a salt thereof.

147. The method according to claim 136, wherein the compound of said composition is compound 43, or a salt thereof.

148. The method according to claim 136, wherein the compound of said composition is compound 44, or a salt thereof.

149. The method according to claim 136, wherein the compound of said composition is compound 45, or a salt thereof.

150. The method according to claim 136, wherein the compound of said composition is compound 46, or a salt thereof.

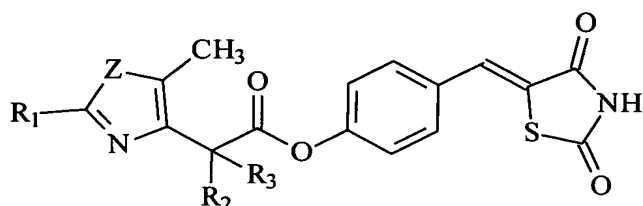
151. The method according to claim 136, wherein the compound of said composition is compound 47, or a salt thereof.

152. The method according to claim 136, wherein the compound of said composition is compound 48, or a salt thereof.

153. The method according to claim 136, wherein the compound of said composition is compound 49, or a salt thereof.

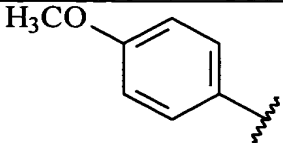
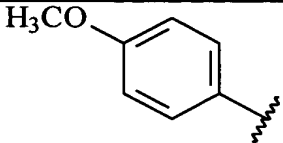
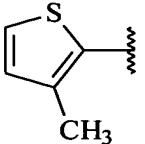
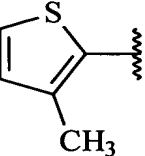
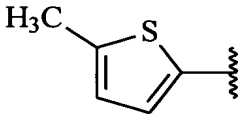
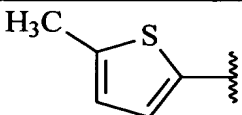
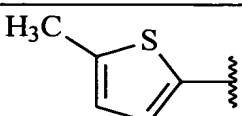
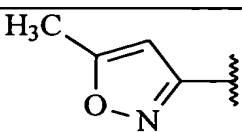
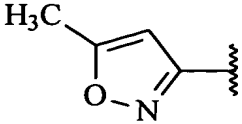
154. The method according to claim 136, wherein the compound of said composition is compound 50, or a salt thereof.

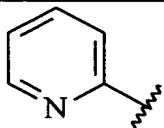
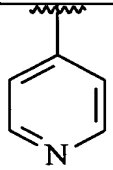
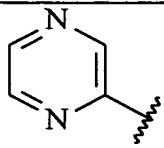
155. The method according to claim 131, wherein the compound of said composition has the formula



and wherein R₁, R₂, R₃, and Z are defined as:

Compound number	Z	R ₁	R ₂	R ₃	
51	O		H	H	;
52	O		CH ₃	H	;
53	O		CH ₃	CH ₃	;
54	S		CH ₃	H	;
55	O		CH ₃	H	;
56	S		CH ₃	H	;

Compound number	Z	R ₁	R ₂	R ₃
57	O		CH ₃	H ;
58	S		CH ₃	H ;
59	O		CH ₃	H ;
60	S		CH ₃	H ;
61	O		H	H ;
62	O		CH ₃	H ;
63	S		H	H ;
64	O		CH ₃	H ;
65	S		H	H ;

Compound number	Z	R ₁	R ₂	R ₃	
66	O		CH ₃	H	;
67	O		CH ₃	H	; or
68	O		CH ₃	H	or salts thereof.

156. The method according to claim 155, wherein the compound of said composition is compound 51, or a salt thereof.

157. The method according to claim 155, wherein the compound of said composition is compound 52, or a salt thereof.

158. The method according to claim 155, wherein the compound of said composition is compound 53, or a salt thereof.

159. The method according to claim 155, wherein the compound of said composition is compound 54, or a salt thereof.

160. The method according to claim 155, wherein the compound of said composition is compound 55, or a salt thereof.

161. The method according to claim 155, wherein the compound of said composition is compound 56, or a salt thereof.

162. The method according to claim 155, wherein the compound of said composition is compound 57, or a salt thereof.

163. The method according to claim 155, wherein the compound of said composition is compound 58, or a salt thereof.

164. The method according to claim 155, wherein the compound of said composition is compound 59, or a salt thereof.

165. The method according to claim 155, wherein the compound of said composition is compound 60, or a salt thereof.

166. The method according to claim 155, wherein the compound of said composition is compound 61, or a salt thereof.

167. The method according to claim 155, wherein the compound of said composition is compound 62, or a salt thereof.

168. The method according to claim 155, wherein the compound of said composition is compound 63, or a salt thereof.

169. The method according to claim 155, wherein the compound of said composition is compound 64, or a salt thereof.

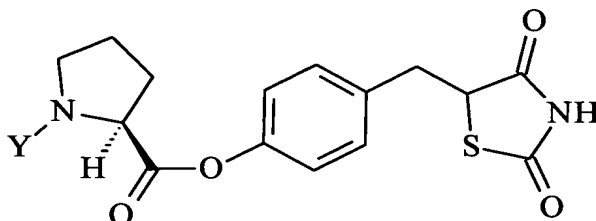
170. The method according to claim 155, wherein the compound of said composition is compound 65, or a salt thereof.

171. The method according to claim 155, wherein the compound of said composition is compound 66, or a salt thereof.

172. The method according to claim 155, wherein the compound of said composition is compound 67, or a salt thereof.

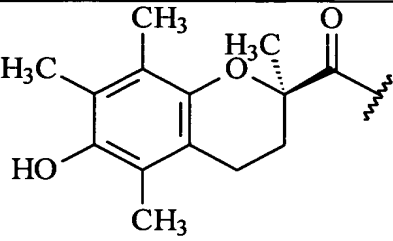
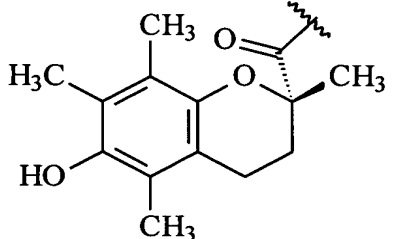
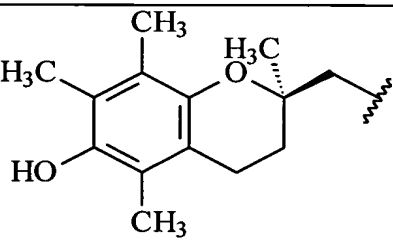
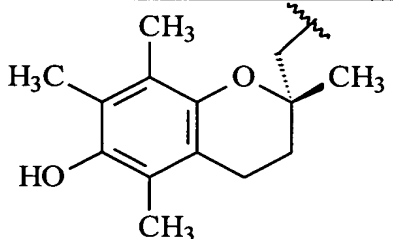
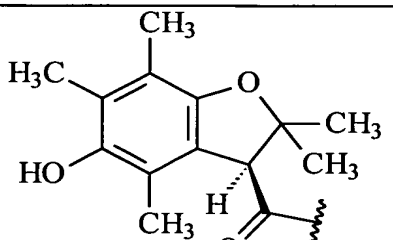
173. The method according to claim 155, wherein the compound of said composition is compound 68, or a salt thereof.

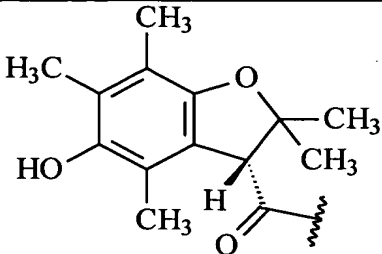
174. The method according to claim 131, wherein the compound of said composition has the formula



and wherein Y is defined as:

Compound Number	Y
105	;
106	;
107	;
108	;

Compound Number	Y
109	
110	
111	
112	
113	

Compound Number	Y
114	

or salts thereof.

175. The method according to claim 174, wherein the compound of said composition is compound 105, or a salt thereof.

176. The method according to claim 174, wherein the compound of said composition is compound 106, or a salt thereof.

177. The method according to claim 174, wherein the compound of said composition is compound 107, or a salt thereof.

178. The method according to claim 174, wherein the compound of said composition is compound 108, or a salt thereof.

179. The method according to claim 174, wherein the compound of said composition is compound 109, or a salt thereof.

180. The method according to claim 174, wherein the compound of said composition is compound 110, or a salt thereof.

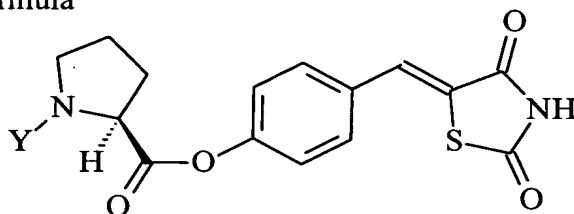
181. The method according to claim 174, wherein the compound of said composition is compound 111, or a salt thereof.

182. The method according to claim 174, wherein the compound of said composition is compound 112, or a salt thereof.

183. The method according to claim 174, wherein the compound of said composition is compound 113, or a salt thereof.

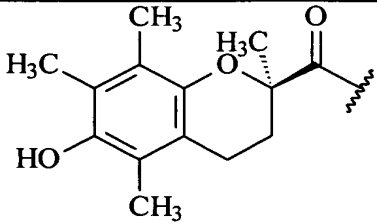
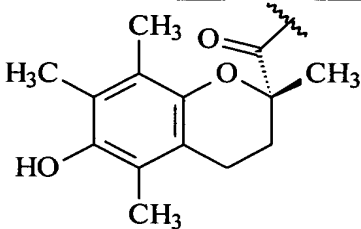
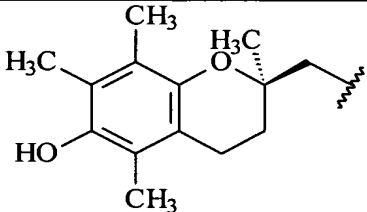
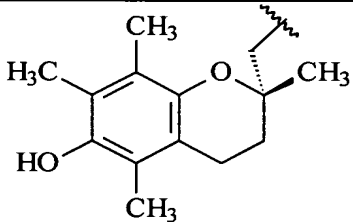
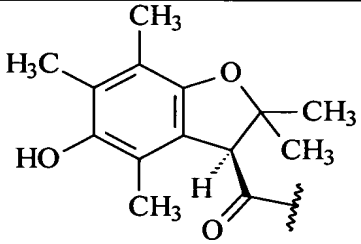
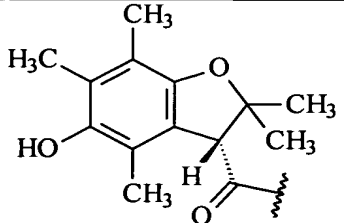
184. The method according to claim 174, wherein the compound of said composition is compound 114, or a salt thereof.

185. The method according to claim 131, wherein the compound of said composition has the formula



and wherein Y is defined as:

Compound number	Y
115	;
116	;
117	;
118	;

Compound number	Y
119	
120	
121	
122	
123	
124	

186. The method according to claim 185, wherein the compound of said composition is compound 115, or a salt thereof.

187. The method according to claim 185, wherein the compound of said composition is compound 116, or a salt thereof.

188. The method according to claim 185, wherein the compound of said composition is compound 117, or a salt thereof.

189. The method according to claim 185, wherein the compound of said composition is compound 118, or a salt thereof.

190. The method according to claim 185, wherein the compound of said composition is compound 119, or a salt thereof.

191. The method according to claim 185, wherein the compound of said composition is compound 120, or a salt thereof.

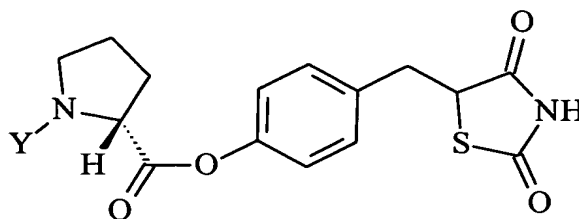
192. The method according to claim 185, wherein the compound of said composition is compound 121, or a salt thereof.

193. The method according to claim 185, wherein the compound of said composition is compound 122, or a salt thereof.

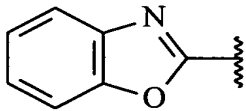
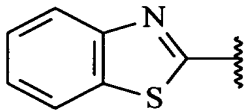
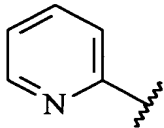
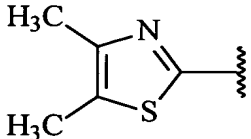
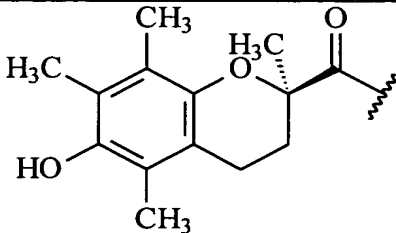
194. The method according to claim 185, wherein the compound of said composition is compound 123, or a salt thereof.

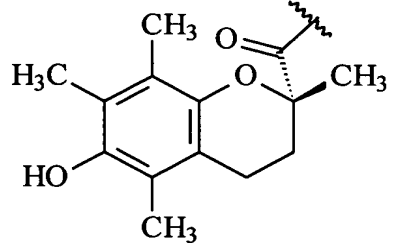
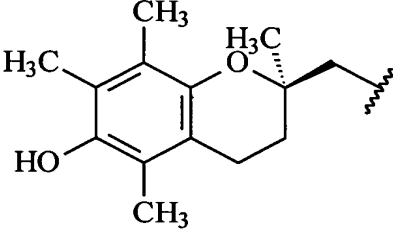
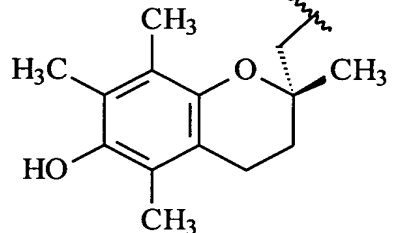
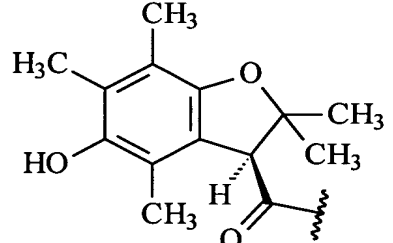
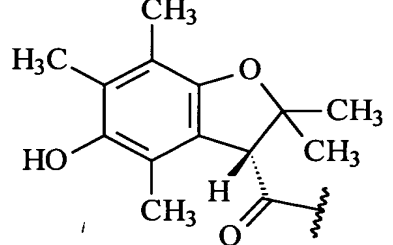
195. The method according to claim 185, wherein the compound of said composition is compound 124, or a salt thereof.

196. The method according to claim 131, wherein the compound of said composition has the formula



and wherein Y is defined as:

Compound number	Y
125	 ;
126	 ;
127	 ;
128	 ;
129	 ;

Compound number	Y
130	
131	
132	
133	
134	

or salts thereof.

197. The method according to claim 196, wherein the compound of said composition is compound 125, or a salt thereof.

198. The method according to claim 196, wherein the compound of said composition is compound 126, or a salt thereof.

199. The method according to claim 196, wherein the compound of said composition is compound 127, or a salt thereof.

200. The method according to claim 196, wherein the compound of said composition is compound 128, or a salt thereof.

201. The method according to claim 196, wherein the compound of said composition is compound 129, or a salt thereof.

202. The method according to claim 196, wherein the compound of said composition is compound 130, or a salt thereof.

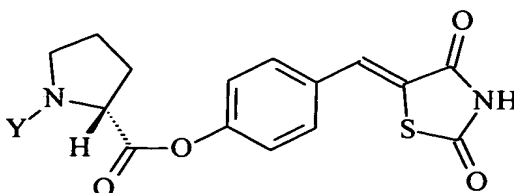
203. The method according to claim 196, wherein the compound of said composition is compound 131, or a salt thereof.

204. The method according to claim 196, wherein the compound of said composition is compound 132, or a salt thereof.

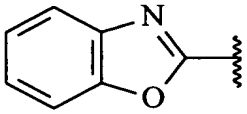
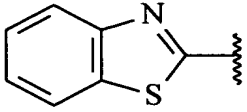
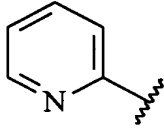
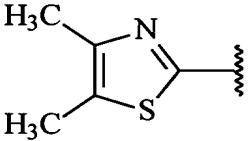
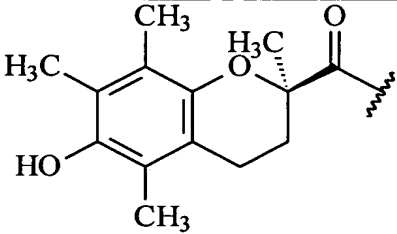
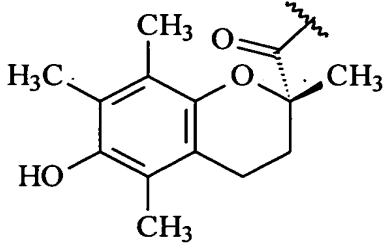
205. The method according to claim 196, wherein the compound of said composition is compound 133, or a salt thereof.

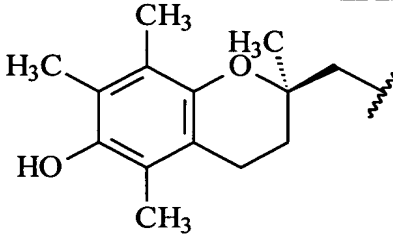
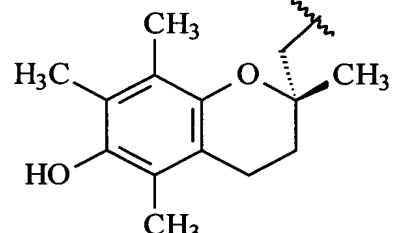
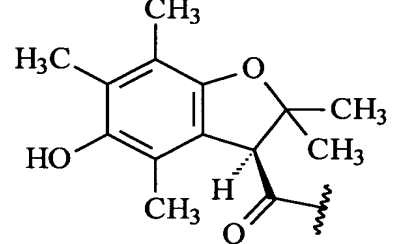
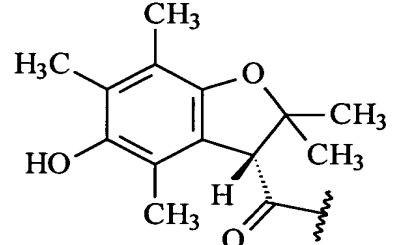
206. The method according to claim 196, wherein the compound of said composition is compound 134, or a salt thereof.

207. The method according to claim 131, wherein the compound of said composition has the formula



and wherein Y is defined as:

Compound number	Y
135	 ;
136	 ;
137	 ;
138	 ;
139	 ;
140	 ;

Compound number	Y
141	
142	
143	
144	

208. The method according to claim 207, wherein the compound of said composition is compound 135, or a salt thereof.

209. The method according to claim 207, wherein the compound of said composition is compound 136, or a salt thereof.

210. The method according to claim 207, wherein the compound of said composition is compound 137, or a salt thereof.

211. The method according to claim 207, wherein the compound of said composition is compound 138, or a salt thereof.

212. The method according to claim 207, wherein the compound of said composition is compound 139, or a salt thereof.

213. The method according to claim 207, wherein the compound of said composition is compound 140, or a salt thereof.

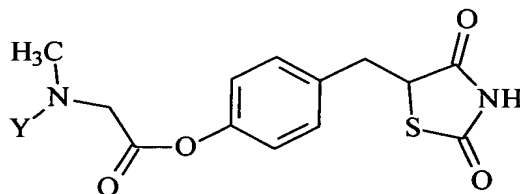
214. The method according to claim 207, wherein the compound of said composition is compound 141, or a salt thereof.

215. The method according to claim 207, wherein the compound of said composition is compound 142, or a salt thereof.

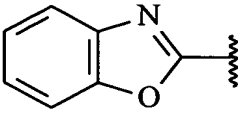
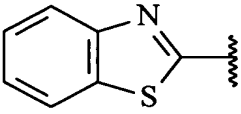
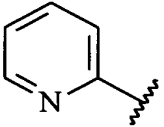
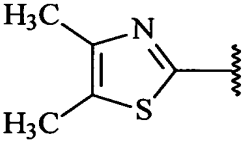
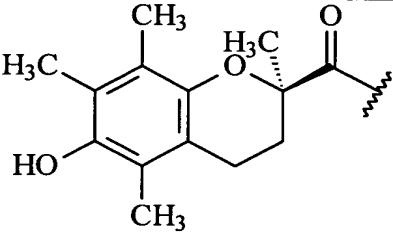
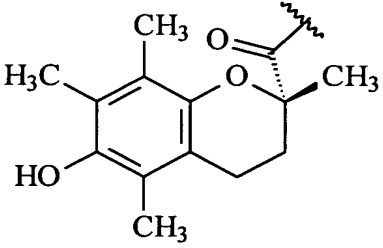
216. The method according to claim 207, wherein the compound of said composition is compound 143, or a salt thereof.

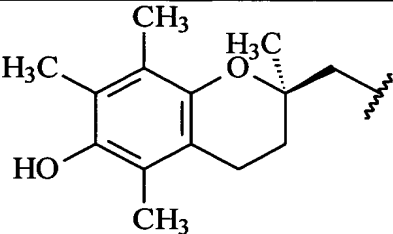
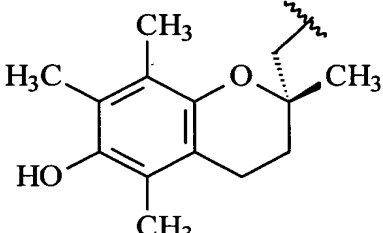
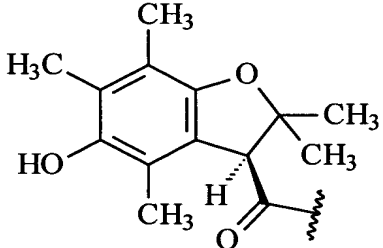
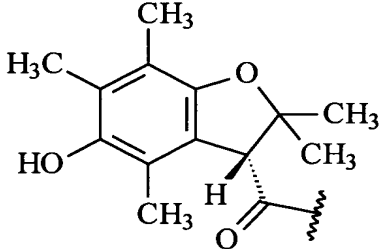
217. The method according to claim 207, wherein the compound of said composition is compound 144, or a salt thereof.

218. The method according to claim 131, wherein the compound of said composition has the formula



and wherein Y is defined as:

Compound number	Y
185	 ;
186	 ;
187	 ;
188	 ;
189	 ;
190	 ;

Compound number	Y
191	
192	
193	
194	

219. The method according to claim 218, wherein the compound of said composition is compound 185, or a salt thereof.

220. The method according to claim 218, wherein the compound of said composition is compound 186, or a salt thereof.

221. The method according to claim 218, wherein the compound of said composition is compound 187, or a salt thereof.

222. The method according to claim 218, wherein the compound of said composition is compound 188, or a salt thereof.

223. The method according to claim 218, wherein the compound of said composition is compound 189, or a salt thereof.

224. The method according to claim 218, wherein the compound of said composition is compound 190, or a salt thereof.

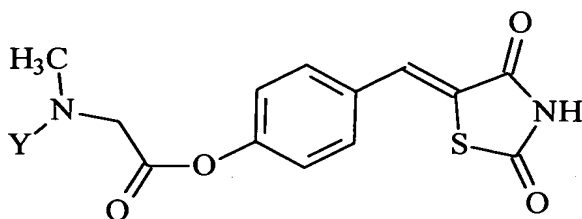
225. The method according to claim 218, wherein the compound of said composition is compound 191, or a salt thereof.

226. The method according to claim 218, wherein the compound of said composition is compound 192, or a salt thereof.

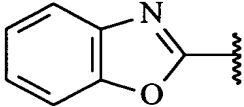
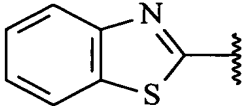
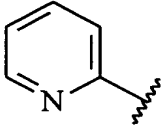
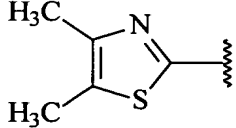
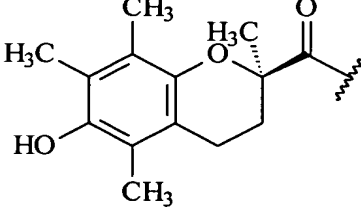
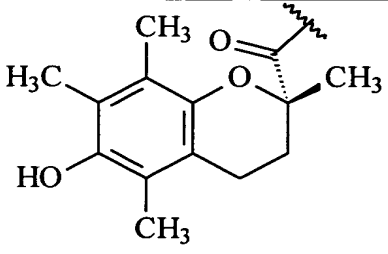
227. The method according to claim 218, wherein the compound of said composition is compound 193, or a salt thereof.

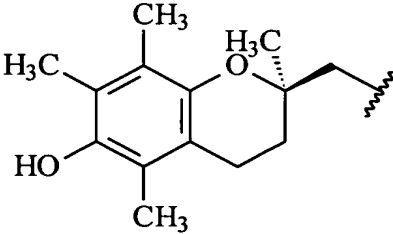
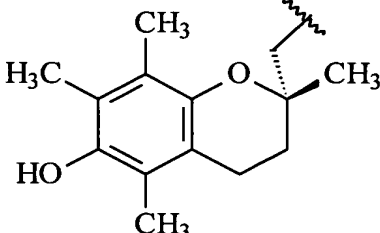
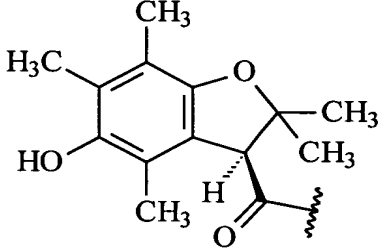
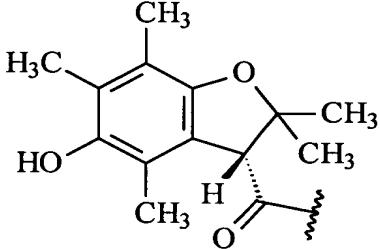
228. The method according to claim 218, wherein the compound of said composition is compound 194, or a salt thereof.

229. The method according to claim 131, wherein the compound of said composition has the formula



and wherein Y is defined as:

Compound number	Y
195	 ;
196	 ;
197	 ;
198	 ;
199	 ;
200	 ;

Compound number	Y
201	
202	
203	
204	

230. The method according to claim 229, wherein the compound of said composition is compound 195, or a salt thereof.

231. The method according to claim 229, wherein the compound of said composition is compound 196, or a salt thereof.

232. The method according to claim 229, wherein the compound of said composition is compound 197, or a salt thereof.

233. The method according to claim 229, wherein the compound of said composition is compound 198, or a salt thereof.

234. The method according to claim 229, wherein the compound of said composition is compound 199, or a salt thereof.

235. The method according to claim 229, wherein the compound of said composition is compound 200, or a salt thereof.

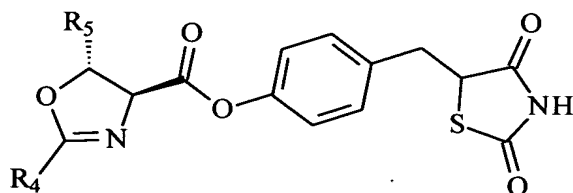
236. The method according to claim 229, wherein the compound of said composition is compound 201, or a salt thereof.

237. The method according to claim 229, wherein the compound of said composition is compound 202, or a salt thereof.

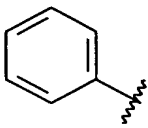
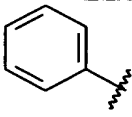
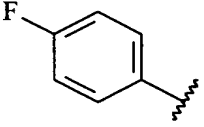
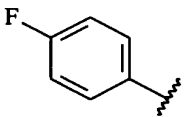
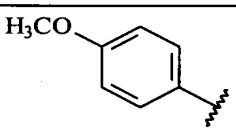
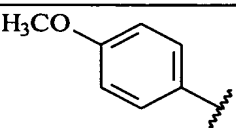
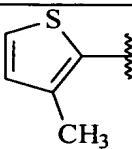
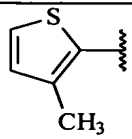
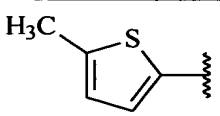
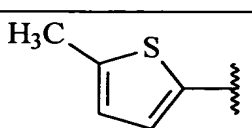
238. The method according to claim 229, wherein the compound of said composition is compound 203, or a salt thereof.

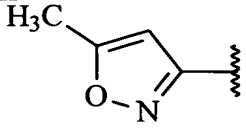
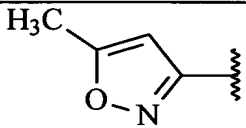
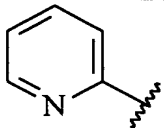
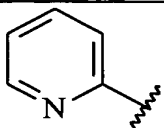
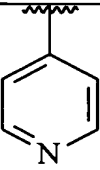
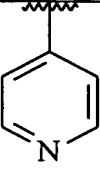
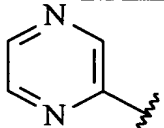
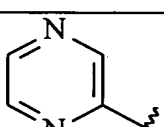
239. The method according to claim 229, wherein the compound of said composition is compound 204, or a salt thereof.

240. The method according to claim 131, wherein the compound of said composition has the formula



and wherein R₄ and R₅ are defined as:

Compound number	R ₄	R ₅
225		H ;
226		CH ₃ ;
227		H ;
228		CH ₃ ;
229		H ;
230		CH ₃ ;
231		H ;
232		CH ₃ ;
233		H ;
234		CH ₃ ;

Compound number	R ₄	R ₅
235		H ;
236		CH ₃ ;
237		H ;
238		CH ₃ ;
239		H ;
240		CH ₃ ;
241		H ; or
242		CH ₃ or salts thereof.

241. The method according to claim 240, wherein the compound of said composition is compound 225, or a salt thereof.

242. The method according to claim 240, wherein the compound of said composition is compound 226, or a salt thereof.

243. The method according to claim 240, wherein the compound of said composition is compound 227, or a salt thereof.

244. The method according to claim 240, wherein the compound of said composition is compound 228, or a salt thereof.

245. The method according to claim 240, wherein the compound of said composition is compound 229, or a salt thereof.

246. The method according to claim 240, wherein the compound of said composition is compound 230, or a salt thereof.

247. The method according to claim 240, wherein the compound of said composition is compound 231, or a salt thereof.

248. The method according to claim 240, wherein the compound of said composition is compound 232, or a salt thereof.

249. The method according to claim 240, wherein the compound of said composition is compound 233, or a salt thereof.

250. The method according to claim 240, wherein the compound of said composition is compound 234, or a salt thereof.

251. The method according to claim 240, wherein the compound of said composition is compound 235, or a salt thereof.

252. The method according to claim 240, wherein the compound of said composition is compound 236, or a salt thereof.

253. The method according to claim 240, wherein the compound of said composition is compound 237, or a salt thereof.

254. The method according to claim 240, wherein the compound of said composition is compound 238, or a salt thereof.

255. The method according to claim 240, wherein the compound of said composition is compound 239, or a salt thereof.

256. The method according to claim 240, wherein the compound of said composition is compound 240, or a salt thereof.

257. The method according to claim 240, wherein the compound of said composition is compound 241, or a salt thereof.

258. The method according to claim 240, wherein the compound of said composition is compound 242, or a salt thereof.

259. The method according to claim 131, wherein:
A is NH and B is sulfur;
D₁-D₆ are C;
E can be attached to one or more of the atoms located at D₂, D₃, D₅ or D₆;
P and Q are a double bond;
E can be the same or different and is a moiety selected from the group consisting of H, C₁₋₁₀ alkyl, and substituted alkyl groups; and
X is a substituted carboxylic group comprising -N-(C)₁₋₃-C(O)O- that is attached to D₁;
or salts of the compound of Formula I.

260. The method according to claim 131, wherein:
A is NH and B is sulfur;
D₁-D₆ are C;
E can be attached to one or more of the atoms located at D₂, D₃, D₅ or D₆;
P and Q are hydrogen;
E is hydrogen; and

X is a substituted carboxylic group comprising $-N-(C)_{1-3}-C(O)O-$ that is attached to D_1 ;
or salts of the compound of Formula I.